

WHAT IS CLAIMED IS:

1. An image reading device operable in a manually placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means,  
5 comprising:

reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read  
10 is in;

15 first reading-speed setting means which sets a reading speed of the ADF document reading means to a predetermined reading speed, upon detection by the reading mode detecting means that the document to be read is in the ADF document reading mode; and

20 second reading-speed setting means which sets a reading speed of the manually placed document reading means to a predetermined reading speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means, upon detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode.

25 2. An image reading device according to claim 1, wherein the second reading-speed setting means sets, as a moving speed of a scanning carriage utilized in the manually placed document reading means, a speed

sufficient to reduce residual vibration in the scanning carriage, in order to set the reading speed for the manually placed document reading means to a speed sufficient for the reduction of image vibration as a 5 result of the reading by the manually placed document reading means.

3. An image reading device according to claim 1, wherein the second reading-speed setting means sets to a speed sufficient to reduce image vibration caused by 10 the reading by the manually placed document reading means and sufficient to guarantee a printing operation of a printer main body for simultaneous printing at a predetermined speed, of the result of the reading by the manually placed document reading means.

4. An image reading device according to claim 1, wherein the second reading-speed setting means sets, as 15 a moving speed of a scanning carriage utilized in the manually placed document reading means, a speed sufficient to reduce residual vibration in the scanning carriage, in order to set the reading speed of the manually placed document reading means to a speed sufficient for the reduction of image vibration caused 20 by the reading by the manually placed document reading means and sufficient to guarantee a printing operation of a printer main body for simultaneous printing at a predetermined speed, of the result of the reading by the manually placed document reading means.

5. An image reading method operable in a manually placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means,  
5 comprising:

detecting which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in;

10 setting a reading speed for the ADF document reading means to a predetermined reading speed, upon detection that the document to be read is in the ADF document reading mode; and

15 setting a reading speed for the manually placed document reading means to a predetermined reading speed sufficient to reduce image vibration as a result of the reading by the manually placed document reading means, upon detection that the document to be read is in the manually placed document reading mode.

6. An image reading device operable in a manually placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means,  
20 comprising:

25 reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in;

first reading-speed setting means which sets a reading speed for the ADF document reading means to a predetermined reading speed, upon detection by the reading mode detecting means that the document to be 5 read is in the ADF document reading mode; and

second reading-speed setting means which sets a reading speed for the manually placed document reading means to a speed slower than the reading speed for the ADF document reading means, upon detection by the 10 reading mode detecting means that the document to be read is in the manually placed document reading mode.

7. An image reading device according to claim 6, wherein the second reading-speed setting means sets, as a moving speed of a scanning carriage utilized in the 15 manually placed document reading means, a speed sufficient to reduce residual vibration in the scanning carriage, in order to reduce the reading speed for the manually placed document reading means to the speed slower than the reading speed for the ADF document reading means sufficient to reduce image vibration in a 20 result of reading by the manually placed document reading means.

8. An image reading device according to claim 6, wherein the second reading-speed setting means reduces 25 the reading speed of the manually placed document reading means to a speed slower than the reading speed of the ADF document reading means sufficient to reduce

image vibration as a result of reading by the manually placed document reading means and sufficient to guarantee a printing operation of a printer main body for simultaneous printing at a predetermined speed, as 5 a result of reading by the manually placed document reading means.

9. An image reading device according to claim 6, wherein the second reading-speed setting means sets, as a moving speed of a scanning carriage utilized in the 10 manually placed document reading means, a speed sufficient to reduce residual vibration in the scanning carriage, in order to reduce the reading speed of the manually placed document reading means to a speed slower than the reading speed of the ADF document 15 reading means sufficient to reduce image vibration as a result of reading by the manually placed document reading means and sufficient to guarantee a printing operation of a printer main body for simultaneous printing at a predetermined speed, of a result of 20 reading by the manually placed document reading means.

10. An image reading method operable in a manually placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means, 25 comprising:

detecting which mode of the manually placed document reading mode and the ADF document reading mode

a document to be read is in;

setting a reading speed for the ADF document reading means to a predetermined reading speed upon detection that the document to be read is in the ADF document reading mode; and

5 setting a reading speed for the manually placed document reading means to a reading speed slower than the reading speed for the ADF document reading means, upon detection that the document to be read is in the 10 manually placed document reading mode.

11. An image reading device operable in a manually placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means, 15 comprising:

reading mode detecting means which detects in which mode of the manually placed document reading mode and the ADF document reading mode a document to be read is in; and

20 reading speed changing means which switches between a reading speed for the manually placed document reading means set upon the detection by the reading mode detecting means that the document to be read is in the manually placed document reading mode 25 and a reading speed for the ADF document reading means set upon the detection that the document to be read is in the ADF document reading mode.

12. An image reading device according to claim 11,  
wherein the second reading-speed setting means sets, as  
a moving speed of a scanning carriage utilized in the  
manually placed document reading means, a speed  
5 sufficient to reduce residual vibration in the scanning  
carriage, in order to change from the reading speed of  
the ADF document reading means to the reading speed of  
the manually placed document reading means sufficient  
to reduce image vibration as a result of reading by the  
10 manually placed document reading means.

13. An image reading device according to claim 11,  
wherein the second reading-speed setting means changes  
the reading speed of the manually placed document  
reading means from the reading speed of the ADF  
15 document reading means, to a speed sufficient to reduce  
image vibration as a result of reading by the manually  
placed document reading means and sufficient to  
guarantee a printing operation of a printer main body  
for simultaneous printing at a predetermined speed, of  
20 the result of the reading by the manually placed  
document reading means.

14. An image reading device according to claim 11,  
wherein the second reading-speed setting means sets, as  
a moving speed of a scanning carriage utilized in the  
manually placed document reading means, a speed  
25 sufficient to reduce residual vibration in the scanning  
carriage, in order to change the reading speed of the

manually placed document reading means from the reading speed of the ADF document reading means to a speed sufficient to reduce image vibration in a result of reading by the manually placed document reading means 5 and sufficient to guarantee a printing operation of a printer main body for simultaneous printing at a predetermined speed, of the result of the reading by the manually placed document reading means.

15. An image reading method operable in a manually 10 placed document reading mode offered by a manually placed document reading means and an ADF document reading mode offered by an ADF document reading means, comprising:

detecting which mode of the manually placed 15 document reading mode and the ADF document reading mode a document to be read is in; and

changing between a reading speed of the manually placed document reading means set upon the detection by the reading mode detecting means that the document to 20 be read is in the manually placed document reading mode and a reading speed of the ADF document reading means set upon the detection that the document to be read is in the ADF document reading mode.